



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,751	04/21/2004	Chuck Price	P00924-US-01 (06579.9374)	5494
22446	7590	09/11/2007	EXAMINER	
ICE MILLER LLP			NORTON, JENNIFER L	
ONE AMERICAN SQUARE, SUITE 3100			ART UNIT	PAPER NUMBER
INDIANAPOLIS, IN 46282-0200			2121	
			MAIL DATE	DELIVERY MODE
			09/11/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/828,751

Applicant(s)

PRICE ET AL.

Examiner

Jennifer L. Norton

Art Unit

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6,9-20 and 25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6,9-20 and 25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 August 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. The following is a **Final Office Action** in response to the Amendment received on 01 August 2007. Claims 1, 12 and 20 been amended. Claims 7, 8, 21-24 and 26-28 have been previously cancelled. Claims 1-6, 9-20 and 25 are pending in this application.

### ***Drawings***

2. The amendment to the Drawings was received on 01 August 2007. The correction is acceptable and the objection is withdrawn.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-5, 11-15, 18 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Publication No. 2003/0150909 (hereinafter Markham).

5. As per claim 1, Markham discloses a method of monitoring and controlling a manufacturing process to enable at least one manufactured product to meet at least one specification, the method comprising the steps of:

providing at least one key process indicator (KPI) dashboard (pg. 4, par. [0049]) with a statistical process control (SPC) subsystem (pg. 9, par. [0116]), pg. 20, par. [0206] and pgs. 23-24, par. [0228]) for at least one manufacturing sub-process (pg. 2, par. [0035]);

automatically collecting (pg. 8, par. [0096], pg. 9, par. [0116], pg. 20-21, par. [0206]-[0207] and pg. 23-24, par. [0226] and [0228]) product specific data (pg. 1, par. [0012]) from the manufacturing sub-process (pgs. 21-22, par. [0212]) through at least one data collecting apparatus (pg. 22, par. [0214] and pgs. 23-24, par. [0228]);

storing said product specific data in at least one database (pg. 3, par. [0039] and Fig. 2, element 70); wherein the product specific data is collected (pgs. 23-24, par. [0228]; "the collection of data in real time, or by certain units of time such as hourly, by shift, per day, weekly, monthly or so forth") and stored at regular time intervals (pg. 27, par. [0252]-[0253]; "the reporting system processes data stored in a database", hence the data collected is data in real time, or by certain units of time such as hourly, by shift, per day, weekly, monthly or so forth is stored);

setting at least one specification for the at least one product and the at least one manufacturing sub-process (pg. 17, par. [0183]);

accessing the at least one database with the KPI dashboard (pg. 2, par. [0035], pg. 3, par. [0039] and pgs. 19-20, par. [0200]);

utilizing the SPC subsystem to set at least one alarm (pg. 5, par. [0058] and pg. 6, par. [0064]) for the at least one product and the at least one manufacturing sub-process (pg. 8, par. [0008] and pgs. 30-31, par. [0280]); and

comparing the product specific data with the at least one alarm (pg. 5, par. [0058] and pg. 6, par. [0064]) and/or the at least one specification and notifying at least one user in real time when the product specific data triggers the at least one alarm and/or the at least one specification (pg. 6, par. [0064], pgs. 19-20, par. [0200] and [0203] and pgs. 30-31, par. [0280]).

6. As per claim 2, Markham discloses collecting and storing product specific data steps comprise automatically collecting and storing first product specific data in the at least one database (pg. 7, par. [0083], pg. 9, par. [0116], pg. 16, par. [0175] and pg. 20, par. [0206]) and manually collecting and storing at least one piece of second product specific data in the same at least one database (pgs. 6-7, par. [0077] and pg. 9, par. [0119]).

7. As per claim 3, Markham discloses the step of storing product identifying data (pg. 17, par. [0183]) and manufacturing plant specific data (pg. 17, par. [0178])

Art Unit: 2121

together in the at least one database (pg. 20, par. [0201] and pg. 26, par. [0244] and [0245]).

8. As per claim 4, Markham discloses the step of allowing the user to select at least one manufacturing sub-process through the KPI dashboard (pgs. 26-27, par. [0251]).

9. As per claim 5, Markham discloses automatically collecting (pg. 8, par. [0096], pg. 9, par. [0116], pg. 20-21, par. [0206]-[0207] and pg. 23-24, par. [0226] and [0228]) and storing the product specific data steps comprise collecting and storing at least one measure specific to the at least one selected manufacturing sub-process that enables the manufactured product to meet the at least one specification (pg. 26, par. [0245]).

10. As per claim 11, Markham discloses the step of generating at least one report based on the product specific data stored in the at least one database (pgs. 26-27, par [0251]-[0253]).

11. As per claim 12, Markham discloses a method of monitoring at least one manufacturing process for at least one manufacturing plant, the method comprising the steps of:

Art Unit: 2121

entering product identifying data for at least one product into a first data entry field (pg. 17, par. [0183]);

entering manufacturing plant specific data into a second data entry field (pg. 17, par. [0178] and [0179]);

assigning at least one data collecting apparatus to at least one manufacturing sub-process that produces the at least one product (pg. 17, par. [0184]);

automatically collecting (pg. 8, par. [0096], pg. 9, par. [0116], pg. 20-21, par. [0206]-[0207] and pg. 23-24, par. [0226] and [0228]) first product specific data with the at least one collecting data apparatus from the at least one manufacturing sub-process (pg. 22, par. [0214], pgs. 23-24, par. [0228] and pg. 26, par. [0245]); and

storing the product identifying data, the plant specific data and the first product specific data together in at least one database (pg. 20, par. [0201] and pg. 26, par. [0244] and [0245]), wherein the first product specific data is collected (pgs. 23-24, par. [0228]; "the collection of data in real time, or by certain units of time such as hourly, by shift, per day, weekly, monthly or so forth") and stored at regular time intervals (pg. 27, par. [0252]-[0253]; "the reporting system processes data stored in a database", hence the data collected is data in real time, or by certain units of time such as hourly, by shift, per day, weekly, monthly or so forth is stored).

12. As per claim 13, Markham discloses the step of manually collecting second product specific data from the at least one product and entering the data (pgs. 6-7, par.

Art Unit: 2121

[0077] and pg. 9, par. [0119]) in the same at least one database that stores the product identifying data, the plant specific data and the first product specific data (pg. 20, par. [0201] and pg. 26, par. [0244] and [0245]).

13. As per claim 14, Markham discloses the step of setting at least one range of specifications for the first product specific data (pg. 17, par. [0183]).

14. As per claim 15, Markham discloses the step of notifying the user in real time when the first product specific data falls outside the at least one range of specifications (pg. 6, par. [0064], pgs. 19-20, par. [0200] and [0203] and pgs. 30-31, par. [0280])

15. As per claim 18, Markham discloses the step of generating at least one report from the product identifying data, the plant specific data, the automatically collected (pg. 8, par. [0096], pg. 9, par. [0116], pg. 20-21, par. [0206]-[0207] and pg. 23-24, par. [0226] and [0228]) first product specific data, and the second product specific data stored in the same at least one database (pgs. 26-27, par [0251]-[0253]).

16. As per claim 19, Markham discloses the step of enabling at least one user to access the at least one database in order to track the at least one product through at least one step of the at least one manufacturing sub-process (pgs. 26-27, par. [0251]-[0253]).



***Claim Rejections - 35 USC § 103***

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claims 6, 9, 10, 16, 17, 20 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Publication No. 2003/0150909 (hereinafter Markham).

As per claim 6, Markham teaches the setting of the at least specification step comprises setting at least one range of specifications for the at least one measure (pg. 17, par. [0183]) and the setting of the at least one alarm step (pg. 5, par. [0058] and pg. 6, par. [0064]).

Markham does not expressly teach the setting at least one range of alarms for the measure.

Spriggs teaches to setting a range of alarms (col. 10, lines 1-2 and 22-30).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of Markham to include setting a

range of alarms to reduce operating costs, provide fewer and less severe failures and better production availability (col. 1, lines 35-46 and col. 2, lines 27-38).

19. As per claim 9, Markham teaches as set forth above the step of entering into the at least one database a reason for the collected measure falling outside of the at least one range of alarms and/or specifications (pg. 8, par. [0093], [0096] and [0102] and pg. 9, par. [0119]).

20. As per claim 10, Markham teaches as set forth above the step of entering a corrective action into the at least one database, which was taken to prevent the at least one measure from falling outside of the at least one range of alarms and/or specifications (pg. 9, par. [0119]).

21. As per claim 16, Markham teaches to the step of setting at least one alarm (pg. 5, par. [0058] and pg. 6, par. [0064]).

Markham does not expressly teach the step of setting at least one alarm within the at least one range of specifications.

Spriggs teaches the step of setting at least one alarm within the at least one range of specifications (col. 10, lines 1-2 and 22-30).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of Markham to include the step of setting at least one alarm within the at least one range of specifications to reduce operating costs, provide fewer and less severe failures and better production availability (col. 1, lines 35-46 and col. 2, lines 27-38).

22. As per claim 17, Markham teaches as set forth above the step of notifying the user in real time when the first product specific data triggers the alarm (pg. 6, par. [0064], pgs. 19-20, par. [0200] and [0203] and pgs. 30-31, par. [0280]).

23. As per claim 20, Markham teaches a method of allowing a user to access a plant management database and configure and manipulate the data stored therein, the method comprising:

providing at least one piece of manufacturing equipment capable of producing at least one product (pg. 23, par. [0227]);

collecting automatically (pg. 8, par. [0096], pg. 9, par. [0116], pg. 20-21, par. [0206]-[0207] and pg. 23-24, par. [0226] and [0228]) a first product specific data from the at least one piece of manufacturing equipment (pg. 7, par. [0083], pg. 9, par. [0116], pg. 16, par. [0175] and pg. 20, par. [0206]);

Art Unit: 2121

entering manually second product specific data for the at least one product produced from the manufacturing equipment (pgs. 6-7, par. [0077] and pg. 9, par. [0119]);

setting at least one range of specifications (pg. 17, par. [0183]) and at least one alarm for the at least one product (pg. 5, par. [0058] and pg. 6, par. [0064]); and

storing the first product data, the second product specific data, the at least one range of specifications, and the at least one alarm together in the same at least one database (pg. 20, par. [0201] and pg. 26, par. [0244] and [0245]), wherein the first product specific data is collected (pgs. 23-24, par. [0228]; "the collection of data in real time, or by certain units of time such as hourly, by shift, per day, weekly, monthly or so forth") and stored at regular time intervals (pg. 27, par. [0252]-[0253]; "the reporting system processes data stored in a database", hence the data collected is data in real time, or by certain units of time such as hourly, by shift, per day, weekly, monthly or so forth is stored); and

comparing the first product specific data with the second product specific data to the at least alarm (pg. 5, par. [0058] and pg. 6, par. [0064]) and/or the at least one range of specifications and notifying at least one user in real time when the first product specific data and/or the second specific product data falls outside of the at least alarm and/or the at least one range of specifications (pg. 6, par. [0064], pgs. 19-20, par. [0200] and [0203] and pgs. 30-31, par. [0280]).

Markham does not expressly teach to setting a range of alarms.

Spriggs teaches to setting a range of alarms (col. 10, lines 1-2 and 22-30).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of Markham to include setting a range of alarms to reduce operating costs, provide fewer and less severe failures and better production availability (col. 1, lines 35-46 and col. 2, lines 27-38).

24. As per claim 25, Markham teaches as set forth above the step of generating at least one report based on the first product specific data and/or the second product specific data stored in the at least one database (pgs. 26-27, par. [0251]-[0253]).

### ***Response to Arguments***

25. Applicant's arguments see Remarks pgs. 9-11, filed 01 August 2007 with respect to claims 1-5, 11-15, 18 and 19 under 35 U.S.C. 102(e) have been fully considered but they are not persuasive.

26. The Examiner emphasizes that all anticipated components and limitations of pending claims are present in the prior art as supported below. In addition, the Examiner notes the limitation of "collecting and storing product specific data at regular

Art Unit: 2121

time intervals" was newly presented in the Amendment After Non-Final received on 01 August 2007 by the Office, and has been addressed as set forth in the Office Action above.

Markham discloses (pgs. 23-24, par. [0228]) "The financial reports 56 generated with the corrected PIPE data may be in any suitable format, such as web page 162 on a secure Internet site or an Intranet to allow remote employees to observe productivity, waste, delay, other desired parameters, including lost profit, cost of waste and delay, performance relative to targeted Key Performance Indicators, and so forth. In one embodiment, a web page 162 continually provides real time productivity information in a format customizable by the user so that machine or plant operation may be tracked essentially in real time, or by certain units of time such as hourly, by shift, per day, weekly, monthly, and so forth. Printed publications 164 may also be prepared in any form. In another embodiment, a spreadsheet 166 such as a MICROSOFT brand Excel spreadsheet or other spreadsheet tool is prepared in a format that may directly be incorporated into a report, such as a monthly report, quarterly report, or annual report."

(pg. 27, par. [0252]) "The reporting system processes data stored in a database. The data includes, but is not limited to, automatically collected event-based waste and delay records in a manufacturing system. Each record represents an event and includes, for example, a timestamp, an event code, and a measure of cost or

production loss associated with the event. The reporting system may be implemented as a system on one or more computer-readable media having computer-executable components. Further, the system may include a graphical user interface including a display and a user interface selection device. A display device renders the display."

(pg. 27, par. [0253]) "In general, the reporting system displays a report user interface as illustrated in FIG. 13 via a view component on the display device to a user. The user interface defines a plurality of time periods and a plurality of financial report types. The reporting system receives from the user via the user interface selection device a selected time period corresponding to one or more of the time periods and a selected report type corresponding to one or more of the report types (e.g., via an input component). With reference to FIG. 3, in response to the received selections (e.g., as query 118), the reporting system retrieves report data associated with the selected report type for the selected time period from the data in the database in response to a user command (e.g., via an execution component) to generate a financial report at 116. The retrieved report data pertains only to the selected time period; that is, data from any other time period is excluded from the report data. The time periods include, but are not limited to, a month-to-date time period, a week-to-date time period, a year-to-date time period, a last thirty days time period, a last seven days time period, and a user-specifiable time period. For the user-specifiable time period, the analyst specifies a start date and an end date. In the embodiment of FIG. 13, the user

Art Unit: 2121

may use the user interface selection device (e.g., a mouse) to select the "SUBMIT" button to issue the user command or send an execution signal to the reporting system."

27. Applicant's arguments see Remarks pgs. 11-12, filed 01 August 2007 with respect to claims 6, 9, 10, 16, 17, 20 and 25 under 35 U.S.C. 103(a) have been fully considered but they are not persuasive.

28. In regards to Applicant's arguments, Markham and Spriggs fail to teach the claimed limitation "collecting and storing product specific data at regular time intervals", the Examiner refers to the above response, pgs. 12-15, paragraph 26 of this Office action, and the argument herein as addressed.

29. The Examiner notes support for the newly presented limitation "collecting and storing product specific data at regular time intervals" is not found in Applicant's Disclosure. The Examiner requests clarification on support for this limitation to avoid a potential 35 U.S.C. 112, first paragraph, rejection as failing to comply with the written description requirement.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.



The following references are cited to further show the state of the art with respect to a plant management system.

U.S. Patent Publication No. 2007/0150081 discloses a method and apparatus for displaying process control information via a graphical user interface instantiates a runtime workspace application to operatively interpose between an operator station operating system and an operator.

U.S. Patent No. 7,248,938 discloses a system and method for monitoring product through a batch manufacturing plant.

U.S. Patent No. 7,249,356 discloses a batch event historian, which gathers, stores and presents data regarding a batch process where relationships among the various elements of data are automatically derived by an executive program.

U.S. Patent No. 7,251,540 discloses a system and method configured to analyze a performance of a product.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

Art Unit: 2121

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer L. Norton whose telephone number is 571-272-3694. The examiner can normally be reached on 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on 571-272-3687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

Art Unit: 2121

have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'Anthony Knight', with a stylized flourish at the end.

Anthony Knight  
Supervisory Patent Examiner  
Art Unit 2121